City Council Study Session
AGENDA REPORT

DATE: 01/11/2022

AGENDA OF: 01/18/2022

DEPARTMENT: City Manager

SUBJECT: Climate Action Plan 2030 – Target Setting Study Session (CM)

RECOMMENDATION: Review and provide feedback on the Climate Action Plan 2030 greenhouse gas emissions reduction target options.

BACKGROUND: It is up to the global community collectively to take action through governmental, civic, corporate and diplomatic means to limit greenhouse gas (GHG) emissions to keep global temperature rise to under 1.5 degrees Celsius, the tipping point for irreversible climate impacts. According to the Intergovernmental Panel on Climate Change Working Group I sixth assessment, under the current emissions trajectory, 1.5 degrees Celsius of warming will occur with the next two decades. Limiting warming to this level to prevent the most severe climate impacts depends on implementation of transformational actions this decade. While making investments to ensure this tipping point is not reached will be difficult and require managing trade-offs, it also provides a massive opportunity to create and retain better quality jobs, and achieve equitable health benefits and livelihoods. This agenda report outlines the technical considerations and options for setting community-wide and municipal emissions reduction targets. The study session will include a presentation that delves into deeper context and nuance when considering this information. The aim of the study session is to review and provide feedback on the GHG emissions reduction target options.

Since April 2021, City staff have worked with Climate Action Task Force members, other municipal staff and the broader community to develop the Climate Action Plan 2030 (Plan). The aim of the Plan development effort, coined Resilient Together Santa Cruz, is to determine the year and most equitable pathway to carbon neutrality. Two major community and employee engagement efforts since project initiation enabled the staff and consultant team to identify and iterate on working vision and value statements for the Plan and its intended outcomes. Through its equity advisors and small focus groups with historically under represented and frontline groups, the team has also iteratively developed and applied an equity screening tool, integrating equity considerations in both process and outcomes at each Plan development stage. A summary of the visioning and goal setting community engagements as well as the analysis of equity considerations from community engagement and frontline groups in particular are found in the attachment entitled Community Engagement Results and Summary.

In sum, the community as a whole has an aspirational vision for rapidly drawing down greenhouse gas emissions and seeks to set targets and an implementation pathway grounded in data and science. The working vision and value statements include:

Vision: Enact climate solutions that rapidly achieve deep decarbonization, and support and enhance an equitable community with robust active and public transportation, plentiful housing that is affordable, sustainable, and resilient, and regenerative landscapes.

Values:
• Ensure equity in all policies
• Build people-centric transportation infrastructure
• Promote efficient and low carbon/no carbon energy and water
• Protect and enhance natural resources and urban parks
• Eliminate waste and support local food sources

In addition to emissions reduction targets, the project team, based on community and staff engagement, is also developing climate restoration and climate economy goals, which may be more qualitative in nature. These goals will complement the emissions reductions targets eventually adopted to ensure other climate supportive actions are taken to achieve outcomes that support the community's climate values.

DISCUSSION: Based on the feedback provided by the community, the requirements for a CEQA qualified Plan, state emissions reduction targets and considerations, and analysis of Paris Climate Agreement compliant science based target, the project team has drafted a set of potential emissions reduction target options, the focus of this study session for City Council to discuss and consider.

In 2006, the California Legislature passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32), which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in the State. For the State to reach its GHG emissions reductions goals and targets, local governments must reduce their "fair share" of emissions to limit global warming. California currently has established goals/targets for reducing GHG emissions by 40 percent compared to 1990 levels by 2030 (Senate Bill 32) and achieving carbon neutrality by 2045 (EO B-55-18).

For the City's Climate Action Plan to be considered a "Qualified GHG Reduction Plan" (referred to thereon as a CEQA-qualified Climate Action Plan) that can be used for CEQA GHG emissions analyses tiering purposes pursuant to CEQA Guidelines Section 15183.5[1] , the City is required to adopt a GHG emissions reduction target that is at least as stringent as these State

[1] [1] For a CAP to be a CEQA-qualified Climate Action Plan, the Plan needs to meet the criteria set forth in CEQA Guidelines Section 15183.5(b), which is to accomplish the following: A. Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area; B. Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable; C. Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area; D. Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; E. Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; F. Be adopted in a public process following environmental review.

targets. Other advantages for jurisdictions that have a CEQA-qualified Climate Action Plan is that it shows a stronger commitment to reducing GHG emissions in line with State goals and therefore makes CEQA documents more legally defensible to potential litigation. It will also enable the City to be more competitive for grant funding.

In June 2021, Governor Newsom requested the California Public Utilities Commission (CPUC) and California Air Resources Board (CARB) to accelerate California's progress toward its climate goals in order to meet the urgency of the climate crisis. Given this new direction, and feedback received from the community, the City may want to consider a more ambitious target or aspirational vision to better align with the anticipated acceleration of the State's carbon neutrality goal to 2035. A more ambitious target is one that the City and community would strive to reach, even if it is unlikely that the community achieves this level of emissions reductions. As aspirational vision instead would establish an intention to exceed State requirements and specify areas to accelerate implementation. In order to under the nuance of these different emissions reduction targets, it is important to review historical and project emissions.

Historical and Forecasted Emissions

As part of the Plan update effort, the City's historical GHG inventories (2005, 2010, 2015, 2018, and 2019) were updated from work presented in the June, 2021 CAP 2020 close out report to include off-road emissions and new on-road transportation data that used an origin-destination methodology. These updates give a complete picture of the community's historical GHG emissions, and bring them into alignment with guidance from the Local Governments for Sustainability (ICLEI)[2] U.S. Community Protocol.

As previously mentioned, for the State to reach its GHG targets, local governments must reduce their "fair share" of emissions to limit global warming. The State's GHG targets have been established as mass emissions targets and are often referenced as the legislative, or SB 32, target in local government target setting[3]. The State's specific targets are each benchmarked to a 1990 GHG inventory, and, for most local governments, it is technically challenging to accurately back-cast a GHG inventory and estimate the amount of 1990 emissions due to the lack of available 1990 jurisdictional activity data. Guidance in the California Air Resources Board's 2008 Climate Change Scoping Plan identified local governments as "essential partners" in achieving the State's GHG targets, and encouraged adoption of local GHG targets "…that parallel the State's previous target to reduce greenhouse gas emissions by approximately 15% from current levels by 2020."

To align with the State's 2020 target, many local governments followed the 2008 Climate Change Scoping Plan guidance, which estimates 1990 emissions (also the 2020 target) as 15% below "current" (2005-2008) emissions. Following this methodology, Santa Cruz's 1990 emissions is estimated to be 302,319 metric tons of carbon dioxide equivalent (MT CO2e), or 15% below 2005 GHG emissions. Table 1 shows the City's updated 1990, 2005, and 2019 mass (city-wide) and per capita (per person) emissions. Figure 1 shows the City's 2019 emissions as a proportional pie chart. Figure 2 and Figure 3 graphically represents of the City's 2019 mass and

[2] Local Governments for Sustainability (ICLEI) is the lead author of the greenhouse gas accounting protocols. ICLEI engages with local and regional governments worldwide to strengthen action and support sustainable urban development.

[3] Mass emissions refer to the total GHG emissions within a particular boundary (in this case, the State of California), rather than emissions per person, also known as per capita emissions.

per capita GHG emissions, respectively. Transportation accounts for the largest source of emissions, followed by energy and waste/wastewater.

Table 1 Santa Cruz 1990, 2005 and 2019 GHG Emissions

GHG Emissions Sector	1990 (MT CO_2e)	2005 (MT CO_2e)	2019[1] (MT CO_2e)
Annual GHG Emissions (Mass)	302,319	355,669	274,584[2]
Annual GHG Emissions (Per Capita)	6.08	5.53	4.22

Notes: MT CO_2e: metric tons of carbon dioxide equivalent

[1] Due to the COVID19 pandemic, which disrupted community functions in 2020, 2019 is used as a proxy for 2020.

[2] The City's 2020 target was 30% below 1990 levels, or 211,623 MT CO_2e.

Figure 1 2019 GHG Emissions by Sector

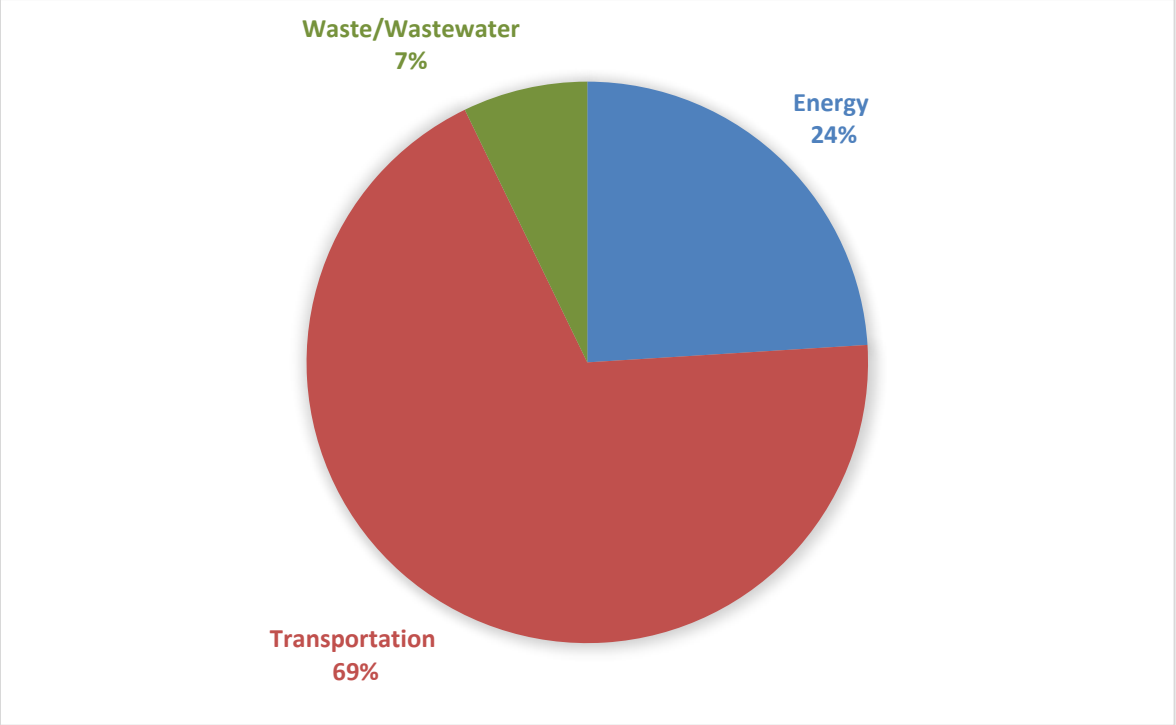


Figure 2 2019 Mass GHG Emissions by Sector

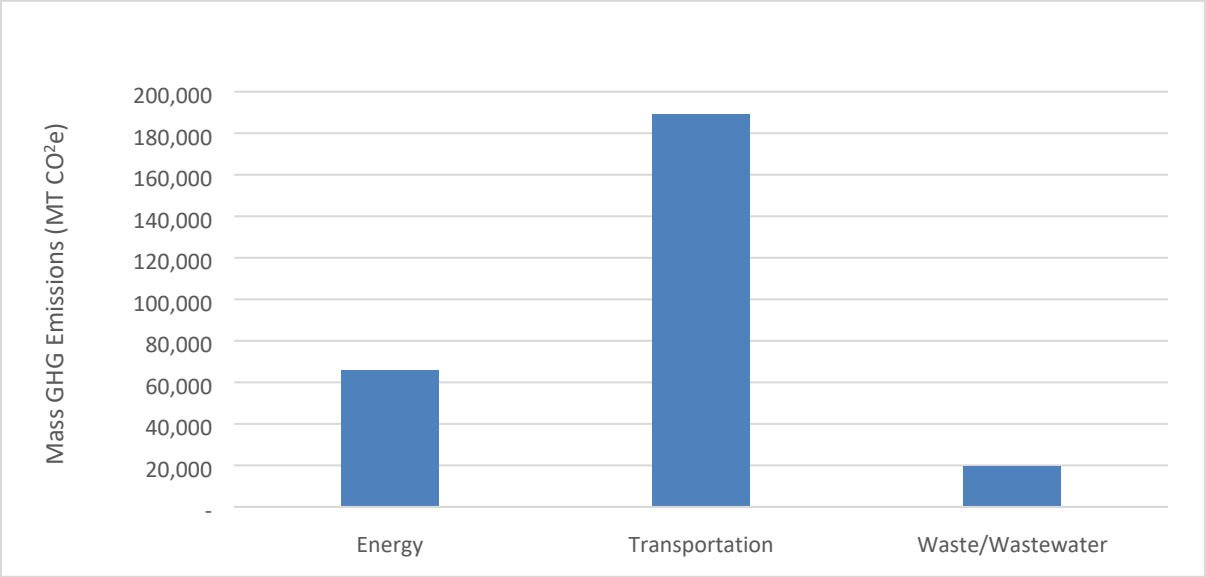
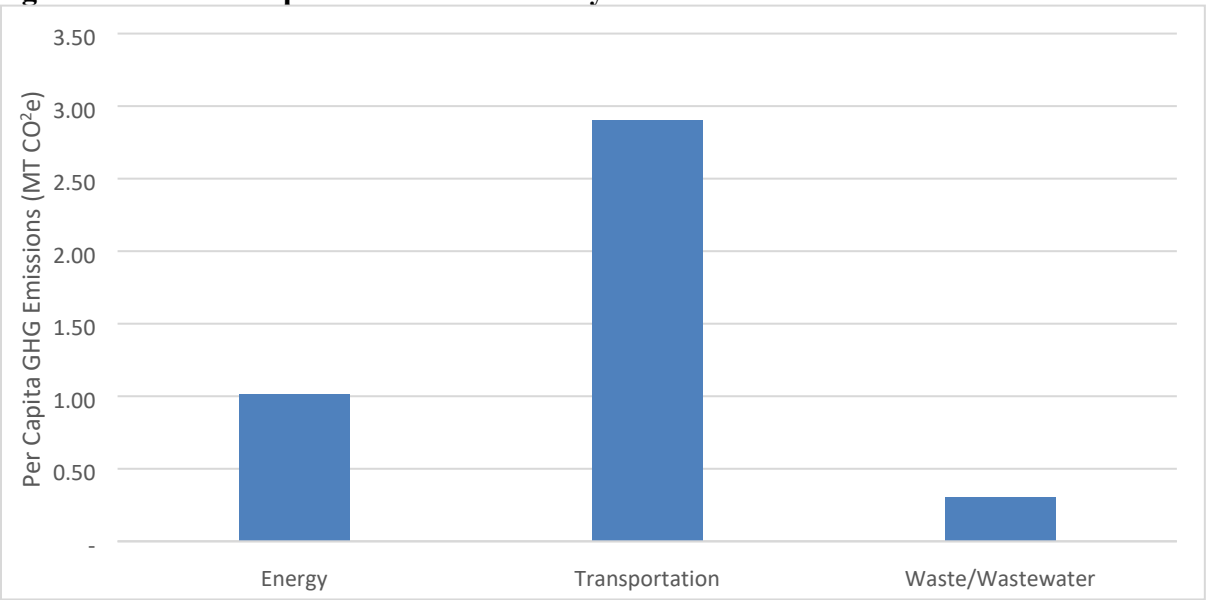


Figure 3 2019 Per Capita GHG Emissions by Sector



The State reached its target to return to 1990 GHG levels in 2016, four years ahead of schedule.[4] As shown in Table 1, the City of Santa Cruz reduced emissions below 1990 in 2019[5]. However, the City adopted a more ambitious 2020 target of reducing community-wide GHG emissions 30% below 1990 levels by 2020 as part of its 2012-2020 Climate Action Plan. Although the CAP 2020 closeout report indicated the City met its 2020 target, upon inclusion of additional vehicle miles traveled not accounted for the AMBAG model, the City did not meet its 2020 target (211,623 MT CO2e), largely due to population and employment growth[6].

[4] California Air Resources Board (CARB). Latest state Greenhouse Gas Inventory shows emissions continue to drop below 2020 target. Available <https://ww2.arb.ca.gov/news/latest-state-greenhouse-gas-inventory-shows-emissions-continue-drop-below-2020-target>. Accessed December 8, 2021.

[5] Due to the COVID19 pandemic, which disrupted community functions in 2020, 2019 is used as a proxy for 2020.

[6] ICLEI USA. July 2021. City of Santa Cruz Contribution Analysis. Submitted to City August 4, 2021.

The GHG inventories and Santa Cruz specific demographics projections were used to determine the community's GHG emissions forecasts. The forecasts in Table 2 were developed to better understand how population and job growth in Santa Cruz could affect future GHG emissions in the years 2025, 2030, 2035, 2040, and 2045. These forecasts help to determine the level of emissions reductions necessary to meet targets. For more information on the GHG inventories and forecasts see attachment entitled GHG Emissions Forecasts Memorandum.

Table 2 GHG Emissions Forecasts Emissions Forecast 2025

Emissions Forecast	2025 (MT CO_2e)	2030 (MT CO_2e)	2035 (MT CO_2e)	2040 (MT CO_2e)	2045 (MT CO_2e)
Business as Usual Forecast	335,150	300,519	309,929	320,156	330,054
Adjusted Forecast	311,244	256,715	249,834	248,562	250,569

Notes:

MT CO_2e: metric tons of carbon dioxide equivalent

[1] The Business-as-Usual Forecast (BAU) projects GHG emissions levels that scale with population, employment and transportation growth consistent with regional projections.

[2] The Adjusted Forecast (Adjusted) accounts for GHG reductions expected to occur from adopted State legislation (e.g., 2019 Title 24 Building Energy Efficiency Standards, Senate Bill 100 – California Renewables Portfolio Standard Program, and more). For more information on the forecasts, reference the Santa Cruz GHG Forecasts Memorandum submitted to the City on November 11, 2021.

GHG Emissions Target Options

As the State is continuously considering and setting new GHG emission targets, this allows the City to choose one or more GHG emissions target(s) to meet the overall objectives of the Climate Action Plan. One of these objectives is to develop a CEQA-qualified Climate Action Plan that is consistent with State-mandated targets. But the City may also want to set additional targets to be either consistent with or go beyond international agreements like the Paris Climate Agreement, i.e., a science-based target (SBT). The general options for targets include, but are not limited to:

- State-mandated target for a CEQA-qualified Climate Action Plan (SB 32 Minimum Target)
  - Senate Bill (SB) 32/Executive Order (EO) B-55-18 – 40% below 1990 emissions level by 2030, carbon neutrality by 2045. The State-mandated target (or SB 32 minimum) requires a clear plan to reach the 2030 target of 40% below 1990 levels, and a pathway toward carbon neutrality by 2045.
- ICLEI – Local Governments for Sustainability[7] Science-Based Target (SBT)
  - 60.7% below 2019 mass emissions by 2030 (62.8% below 2019 per capita emissions by 2030). The SBT sets a 2030 target that reflects maximum effort toward or beyond a fair share of the Paris Climate Agreement to keep global warming to under 1.5 degrees Celsius (50% reductions by 2030, compared to 2019 levels).
- Aspirational targets not subject to CEQA qualified CAP requirements under consideration
  - Carbon neutrality by 2035. This target aligns with Governor Newsom's recent direction to CARB to explore feasibility of carbon neutrality by 2035.

[7] ICLEI – Local Governments for Sustainability is an international non-governmental organization that promotes sustainable development. ICLEI provides technical consulting to local governments to meet sustainability objectives. The "International Council for Local Environmental Initiatives" thus became "ICLEI - Local Governments for Sustainability", with a broader mandate to address sustainability issues, not only environmental issues. As a member of ICLEI, the City's science based target was computed by ICLEI based on the revised 2019 emissions inventory results.

    - Carbon neutrality by 2030. This target represents the most ambitious target that the City could pursue, consistent with the initiative called, "Climate Safe California."
- State-mandated Plus Target
    - This target could be more ambitious than the State-mandated target for a CEQA qualified Climate Action Plan (40% below 1990 levels) but less ambitious than carbon neutrality by 2030 or 2035. This target could aim to reduce GHG emissions somewhere between 45% - 85% below 1990 levels by 2030[8]. The emissions reductions associated with this potential target are not shown in the data and tables below since a target within the range of emission reductions is dependent on feedback from City Council, staff and stakeholders.

As long as the SB 32 minimum target is selected or exceeded on the community-wide scale, different targets may be considered for emissions reductions on the community-wide and municipal scale only. For example, Santa Cruz County has adopted a non-binding aspirational target of carbon neutral municipal operations by 2030 but has not yet considered or adopted a community-wide (County-wide) target. After the study session, the project team will refine the target preferences and bring specific emissions target recommendations at both scales to City Council at an early March, 2022 study session, along with a implementation action set to consider.

Following the consideration and selection of one or more of the targets above, there are two methodologies for calculating the minimum GHG emissions reductions the City must monitor to stay on track for meeting the selected target(s). The City could choose to adopt mass emission or per capita target. Mass emission targets describe emissions in terms of total MT CO2e without any adjustment for population growth. Many local governments, including the City of Santa Cruz, have been unable to reach their mass emissions targets because of population growth. The most recent (2017) California Climate Change Scoping Plan Update includes guidance that details the methodology and benefits of developing per capita targets. The key benefit of a per capita target is that it accounts for population growth, as the target does not become more difficult to reach if the City grows faster than projected. Since the City's growth may be about 10% in the next 8 years, adopting a per capita emissions target is strongly suggested by the project team. Per capita emissions targets are developed by dividing the projected emissions in each target year by the forecasted population. Conversely, per capita target can be translated to mass emissions by multiplying the per capita emissions by the population.

[8] Other jurisdictions that have adopted such targets include: City of San Luis Obispo – carbon neutrality by 2035; City of Watsonville – aspirational goal of net-negative emissions by 2030 and legal target 80% below 1990 levels by 2030; City of Santa Monica – 80% below 1990 levels by 2030; City of Palo Alto – 80% below 1990 levels by 2030; City of Cupertino – 49% reduction by 2035 and 83% by 2050.

Emissions Target Types

Mass Emissions Target Type

The first proposed methodology for the City to consider for setting a GHG emissions reduction target type is based on a total GHG emissions basis, also known as mass emissions. This is the traditional methodology for establishing emissions targets as a part of Climate Action Plans and was employed by the City for development of the 2020 target. The SB 32/Executive Order (EO) B-55-18 pathway to achieve statewide carbon neutrality by 2045 meets the minimum requirements for CEQA GHG emissions analyses streamlining[9] . The pathway sets a 40 percent reduction from 1990 levels by 2030 and then carbon neutrality by 2045 consistent with EO B-55-18. 3 provides GHG emissions targets for 2025, 2030, 2035, 2040, and 2045 for the City based on the four potential targets under consideration discussed above. Figure 4 displays these targets graphically and compares them to the Business as Usual (BAU) and Adjusted Forecast.[10]

Table 3 GHG Emissions Forecasts and Potential Targets – Mass Reduction

Emissions Forecast/Target	2025 (MT CO_2e)	2030 (MT CO_2e)	2035 (MT CO_2e)	2040 (MT CO_2e)	2045 (MT CO_2e)
Business as Usual Forecast[1]	335,150	300,519	309,929	320,156	330,054
Adjusted Forecast[2]	311,244	256,715	249,834	248,562	250,569
State-mandated Target (40% below 1990 emissions level by 2030, and progress toward carbon neutrality by 2045)	223,752	181,391	120,928	60,464	0
Carbon neutrality by 2035 Target (CARB directed to explore feasibility of this target)	171,615	85,808	0	0	0
Carbon neutrality by 2030 Target)	124,811	0	0	0	0
ICLEI - Science-Based Target (based on Paris climate goals – or 50% reductions by 2030 compared to 2019 levels)	191,086	107,912	N/A	N/A	N/A

Notes:

MT CO_2e: metric tons of carbon dioxide equivalent; CARB: California Air Resources Board)

The emission associated with a "State-mandated Plus" target is not shown since a target within the range of emission reductions would have to be determined.

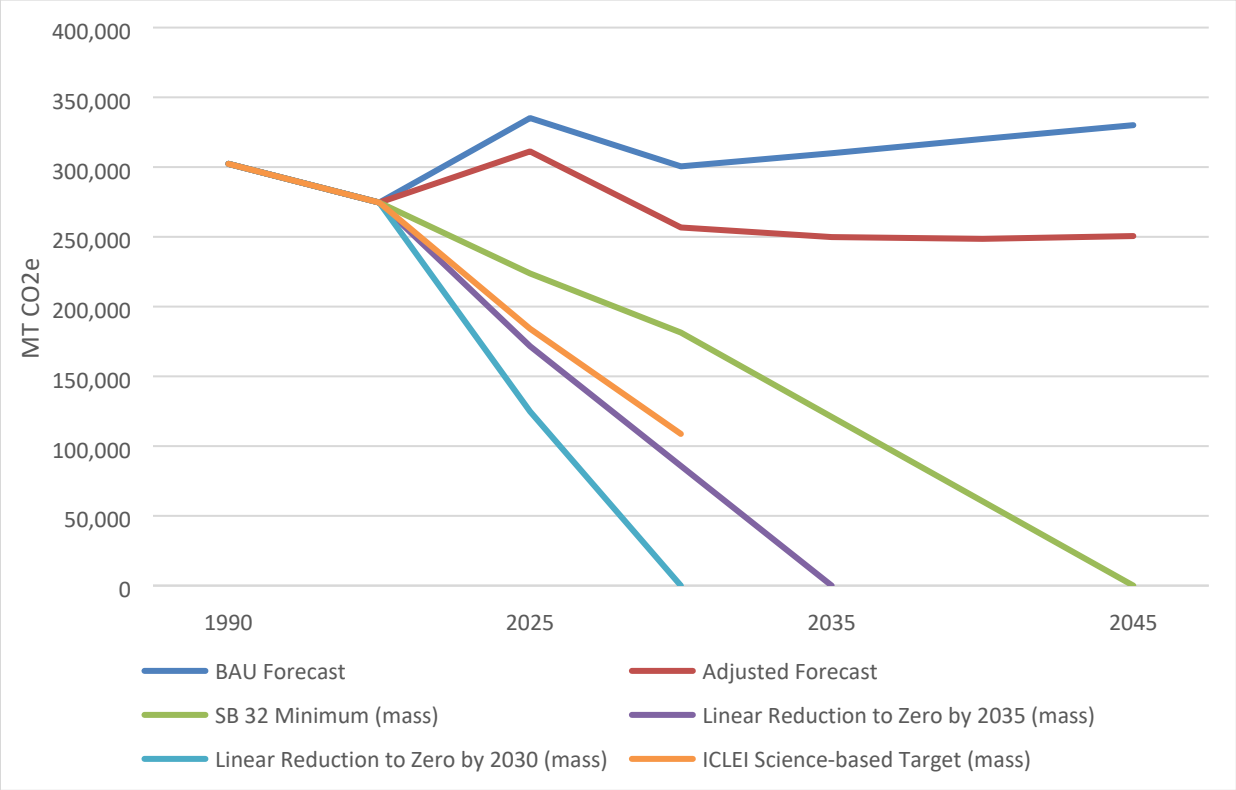
[1] The Business-as-Usual Forecast (BAU) projects GHG emissions levels that scale with population, employment and transportation growth consistent with regional projections.

[2] The Adjusted Forecast (Adjusted) accounts for GHG reductions expected to occur from adopted State legislation (e.g., 2019 Title 24 Building Energy Efficiency Standards, Senate Bill 100 – California Renewables Portfolio Standard Program, and more).

[9] CEQA streamlining refers to the ability of allowance lead agency to tier-off of existing environmental review and avoid the duplication of analysis prepared during planning-level or "programmatic". The CEQA Guidelines provide several ways to streamline GHG analysis within CEQA documents. The CEQA guidelines state that project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175–15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).

[10] For more information on the forecasts, reference Attachment 2, the Santa Cruz GHG Forecasts Memorandum submitted to the City on November 11, 2021.

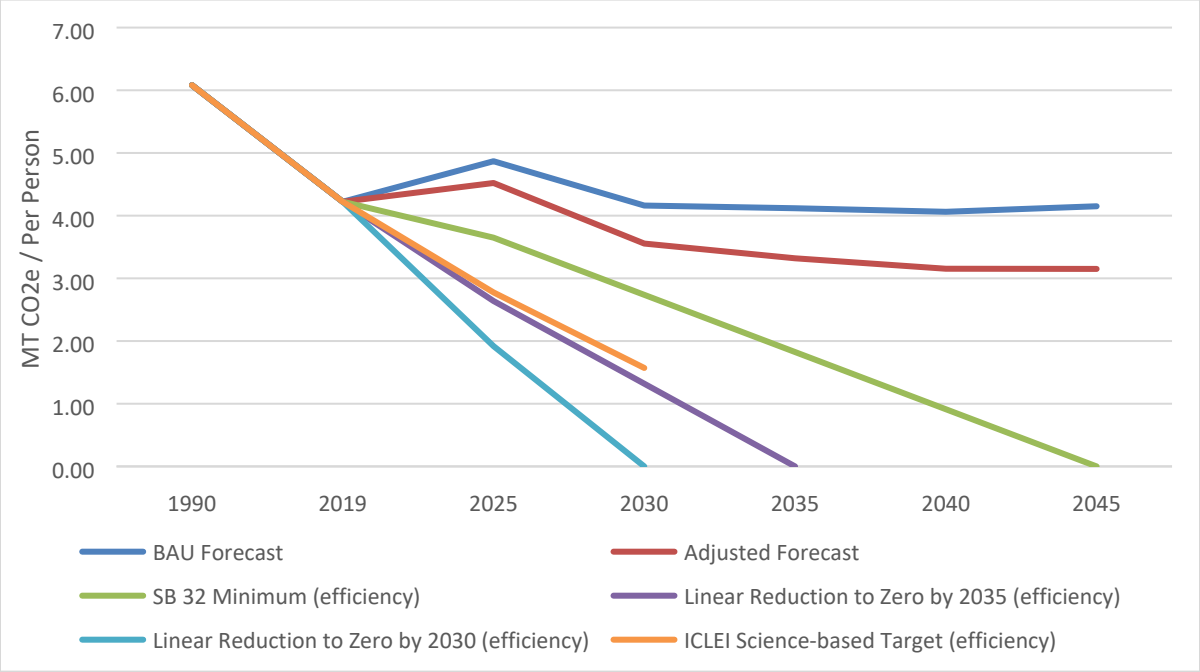
Figure 4 Potential GHG Emissions Forecast (Mass Emissions)



Per Capita Emissions Target Type

The mass GHG emission targets can also be expressed on a per capita basis (the second proposed methodology for setting GHG emissions reduction targets). Per capita targets are derived by dividing the mass emissions by the forecasted population in each target year. The benefit of per capita targets is primarily the ability to control for population growth over time. By adopting a per capita target, the City can grow without sacrificing the ability to reach its GHG reduction goals. Per capita emissions targets can be calculated by dividing the mass emission presented above by the population in order to translate mass emissions into a per capita emissions target. Table 3 provides per capita GHG emissions targets for 2025, 2030, 2035, 2040, and 2045 for the City based on the targets described above. Figure 5 details the per capita GHG emissions targets compared to the projected BAU and Adjusted Forecast.

Figure 5 Potential GHG Emissions Forecast (Per Capita Emissions)



Target Comparisons

For the City to have a CEQA-qualified Climate Action Plan, the State requires that the City of Santa Cruz reduce GHG emissions 40% below 1990 levels by 2030, under SB 32, and make progress toward carbon neutrality by 2045 under EO B-55-18. However, the City may choose to also set a more ambitious, or aspirational, target to meet carbon neutrality before 2045. As mentioned above, setting an aspirational target of carbon neutrality by 2035 would align with Governor Newsom's recent direction to the California Air Resources Board (CARB) to explore carbon neutrality by 2035[11]. This could make the City more competitive for future funding opportunities to meet a more ambitious carbon neutrality target. In addition, a more ambitious aspirational target, such as the ICLEI science-based target, would provide a conservative approach to keep warming below 1.5 degrees Celsius (°C), which the Intergovernmental Panel on Climate Change (IPCC)[12] determined is necessary to avoid the most negative impacts of climate change and ease climate change adaptation.[13]

[11] Office of Governor Gavin Newsom. 2021. Governor Newsom Holds Virtual Discussion with Leading Climate Scientists on State's Progress Toward Carbon Neutrality. Available <https://www.gov.ca.gov/2021/07/09/governor-newsom-holds-virtual-discussion-with-leading-climate-scientists-on-states-progress-toward-carbon-neutrality/>. Accessed November 11, 2021.

[12] The IPCC is an intergovernmental body of the United Nations responsible for advancing knowledge on human-induced climate change.

[13] Hoegh-Guldberg, O., D. Jacob, M. Taylor, M. Bindi, S. Brown, I. Camilloni, A. Diedhiou, R. Djalante, K.L. Ebi, F. Engelbrecht, J.Guiot, Y. Hijioka, S. Mehrotra, A. Payne, S.I. Seneviratne, A. Thomas, R. Warren, and G. Zhou, 2018: Impacts of 1.5ºC Global Warming on Natural and Human Systems. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I.Gomis, E. Lonnoy, T.Maycock, M.Tignor, and T. Waterfield (eds.)]. In Press

Table 4 presents an initial analysis of the level of effort required to achieve the State-mandated SB32 target (40% below 1990 levels by 2030) versus a more ambitious 2030 or 2035 carbon neutrality target or the ICLEI Science-based Target which is slightly less ambitious than the 2035 carbon neutrality target. This analysis includes the major GHG reduction measures required pursuant to the State Scoping Plan. Each measure was analyzed to that identify specific goals (i.e., activity data targets by 2030 and 2045) to address GHG emissions in each sector required for a CEQA qualified CAP (energy, transportation, and waste and wastewater)[14] . A single measure generally addresses a subsector; for example, five measures may be established under the Transportation sector to address subsectors such as active transportation, public transportation, passenger vehicles, commercial vehicles, and off-road equipment. The initial measure reductions depicted are in the process of being considered and adjusted in consultation with staff and relevant stakeholders. Table 4 also provides estimated costs and equity considerations.

Table 4 Target Comparisons

	State-mandated SB 32 Minimum Target (40% below 1990 levels by 2030 and pathway to carbon neutrality by 2045)	Carbon Neutrality by 2030 or 2035
Energy Measures	▪ Electrify 28% of existing residential buildings by 2030 ▪ Electrify 20% of existing commercial buildings by 2030 ▪ Time of replacement implementation and voluntary (could be as high as 10%) ▪ Assumes 6% non-compliance for residential and 1.7% for commercial	▪ Electrify 100% of existing residential buildings by 2030 or 2035 depending on target ▪ Electrify 100% of existing commercial buildings by 2030 or 2035 depending on target ▪ Requires retrofits before time of replacement ▪ Assumes 100% compliance
Transportation Measures	▪ 25% active transportation mode share by 2030 (currently 19.5%) ▪ 8% public transportation mode share by 2030 (currently 7%) ▪ 35% of passenger vehicles are electric by 2030	▪ >25% active transportation mode share by 2030 or 2035 depending on target ▪ >8% public transportation mode share by 2030 or 2035 depending on target ▪ 35% remaining passenger vehicles are electric by 2030 or

[14] The State is currently considering revising the State Scoping Plan to include carbon sequestration (e.g., tree planting, compost application). While this is not required for a CEQA qualified CAP currently, the project team is analyzing the potential for sequestration and will include it as a climate restoration measure in the Plan.

	(currently 5% passenger and commercial) ▪ 25% of commercial vehicles are electric by 2030 (currently 5% passenger and commercial) ▪ 50% off-road equipment decarbonized by 2030	2035 depending on target ▪ 20% remaining commercial vehicles are electric by 2030 or 2035 depending on target ▪ 50% off-road equipment decarbonized by 2030 or 2035 depending on target
Waste and Wastewater Measures	▪ 85% reduction in organic waste by 2030 ▪ 35% reduction in inorganic waste by 2030 ▪ 0% reduction in wastewater process emissions by 2030	▪ 100% reduction in organic waste by 2030 or 2035 depending on target ▪ 100% reduction in inorganic waste by 2030 or 2035 depending on target ▪ 100% reduction in wastewater process emissions by 2030 or 2035 depending on target

Notes: M = million; ft^2 = square foot; 3CE = Central Coast Community Energy; SCCRTC = Santa Cruz County Regional Transportation Commission; EV = electric vehicle; MBARD = Monterey Bay Air Resources District

As shown above, implementation of GHG reduction measures would need to reach 100% by 2030 or 2035 to reach an aspirational carbon neutrality target by those dates. This level of implementation is likely to be difficult to achieve in the next 10 to 15 years without substantial changes in federal and state funding and education and infrastructure investments. Although the Plan is designing implementation to mitigate equity concerns, in the near term those impacts may be more pronounced with a more ambitious target option because of the added investments required in the next 10 years. Moreover, the impacts of unmitigated climate change could likely also cause equity issues in the longer term, particularly to frontline communities ,which the City is addressing through the climate change adaptation initiatives.

Mass and per capita emissions targets for each of the potential targets listed above (i.e., state-mandated SB 32 target and aspirational targets) are described in detail below.

Practically Achievable Emissions Reductions	Aspirational Targets
▪ State-mandated Target (that meets SB 32 minimum requirements) ▪ State-mandated Plus Target (This target could aim to reduce GHG emissions somewhere between 45% - 85% below 1990 levels by 2030)	▪ Carbon Neutrality by 2030 ▪ Carbon Neutrality by 2035 ▪ Science-based

	Target

The City could choose to solely adopt the State-mandated target or a more ambitious State-mandated Plus Target, which meet or exceed the SB 32 minimum requirement. The City could also choose to adopt an aspirational overall emissions reduction target on the community-wide or municipal level, including measure specific aspirations, to reflect an aspirational vision. Any aspirational target would not be used for CEQA streamlining purposes but would allow the City to track progress made towards this target and potentially align with a science-based target and/or a more ambitious State target that could be enacted as a result of Governor Newsom's direction to CARB to explore carbon neutrality by 2035.

Next Steps

The project team has developed an initial set of actions (i.e., the projects, policies, infrastructure and programming) across all State Scoping Plan measure categories (e.g., transportation, building energy, waste and wastewater) to reach the minimum emission reductions required to achieve a CEQA qualified CAP. The equity screening tool is currently being applied to the draft action set and actions will be revised based on the outcomes of the equity screening and internal staff dialogue. The revised draft action set will be released to the community for feedback through an online community dialogue platform the last week of January 2022, and will remain open through March 1, 2022.

In the meantime, the project team will consider the discussion from the January 18 study session and prepare emissions reduction targets and climate restoration and climate economy goal recommendations. In February, 2022 the project team will also prepare preliminary funding and implementation plans to reach the recommended emissions targets and associated goals. The project team will bring this body of work back to City Council for a study session the first week of March, 2022 to consider recommendations for emissions target(s) and other goals to adopt. Between March and May, 2022, the project team will refine the final action set and funding and implementation plan, and draft the Climate Action Plan 2030. The project team aims to visit relevant commissions, conduct one additional major community engagement and bring the final Plan to City Council for adoption in June, 2022.

FISCAL IMPACT: The review of GHG emissions reduction targets as part of this study session does not have a direct fiscal impact but eventual setting of targets and adoption of the Plan will require significant investment from both the community and City municipally to implement the Plan. While example order of magnitude and per unit costs for various emission reduction actions were presented to at context to the target setting discussion, the next phase of the project will focus on costs, implementation and funding. In addition to seeking direction on preferred emissions reduction targets from City Council, the March study session will focus discussion on these important elements of the Plan development.

Prepared By:	**Submitted By:**	**Approved By:**
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ATTACHMENTS:

1. COMMUNITY ENGAGEMENT RESULTS AND SUMMARY.PDF
2. GHG EMISSIONS FORECASTS MEMORANDUM.PDF